UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/627,178	07/27/2000	Mathias Hellwig	GR 99 P 2403	1260

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EXAMINER
KADING, JOSHUA A

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/627,178	HELLWIG ET AL.
	Examiner	Art Unit
	Joshua Kading	2661

-- The MAILING DATE of this communication appears on the cov r sh t with th correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 September 2004_.

2a)☐ This action is FINAL.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _9,11,12 and 14-19_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _9,11,12 and 14-19_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5)☐ Notice of Informal Patent Application (PTO-152)
Paper No(s)/Mail Date _____ .	6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

5   (a) A patent may not be obtained though the invention is not identically disclosed or described as set
       forth in section 102 of this title, if the differences between the subject matter sought to be patented and
       the prior art are such that the subject matter as a whole would have been obvious at the time the
       invention was made to a person having ordinary skill in the art to which said subject matter pertains.
       Patentability shall not be negatived by the manner in which the invention was made.

10

Claims 9, 11, 12, and 15-19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Harriman et al. (U.S. Patent 5,898,687) in view of Mauger (U.S.

Patent 6,483,842 B1) and in further view of Sanders, Jr. et al. (U.S. Patent 4,135,156).

15   Regarding claim 9, Harriman discloses "a method for operating a switching

system for data packets...which comprises:

providing a switching system having inputs and outputs (figure 1, elements 102

and 104);

temporarily storing data packets at an input of the switching system (figure 1,

20   elements 112 and 115 where the shared memory is temporary storage for a switch that

receives many inputs); and

sending only a message, if a data packet is received for transmitting to another

switching system, to an output of the switching system, the message containing a

reference, information about priority for correct marshalling of the data packet...(figure

25   1, elements 114, 130, 132, 134, and 136 where the message is the header from the

data packet which is then broken down into its components, which includes priority and

an address used as a reference); and

     queuing a message packet containing at least one message in a waiting queue

at the output of the switching system (figure 1, elements 130, which stores the

5   messages and is a unicast output queue as per col. 4, lines 27-28)."

     Harriman lacks the packets are of "varying length", and the message containing

"...information about a length of the data packet..." However, Mauger discloses the

packets are of "varying length" (figure 1 shows the ATM packet used in Harriman, which

is a fixed length, however, the ATM packet is made of the ATM mini cells in figure 1 of

10   Mauger, these mini cells can be of varying length and are processed in the switching

system), and the message containing "...information about a length of the data packet

(col. 3, lines 28-29)..."

     It would have been obvious to one with ordinary skill in the art at the time of

invention to include the variable length packet and the message length information with

15   the rest of the method for the purpose of providing different services using one

switching protocol. The motivation being that services such as voice, video, and data

can be communicated using the same system without loss of efficiency (Mauger, col. 3,

lines 42-48).

     Harriman and Mauger however, further lack what Sanders discloses, "returning a

20   further message to an input memory from an appropriate output as soon as the data

packet can be dispatched through the output, and only then transmitting the data packet

to an appropriate destination (col. 11, lines 30-36 where the output queue manager

controls the output queues and the memory refers to the input memory)."

It would have been obvious to one with ordinary skill in the art at the time of

invention to include the returning a further message with the method of claim 9. The

5   motivation being to allow the input memory to accurately combine data with data

addresses that were originally separated at the input, so that the combined address and

data may be further transmitted.

Regarding claim 11, Harriman, Mauger, and Sanders disclose the method of

10   claim 9. Mauger and Sanders lack "the sending step is performed by sending the

message packet along a given transmission path, and which further comprises

transmitting the data packet through the given transmission path but through a separate

logical channel."

However, Harriman further discloses "the sending step is performed by sending

15   the message packet along a given transmission path, and which further comprises

transmitting the data packet through the given transmission path but through a separate

logical channel (figure 1 where the data path between the inputs and element 112 and

the outputs is the transmission path but the logical channel is from the inputs directly to

the outputs)."

20   It would have been obvious to one with ordinary skill in the art at the time of

invention to include the more detailed sending step with the method of claim 9 for the

same reasons and motivation as in claim 9.

Regarding claim 12, Harriman, Mauger, and Sanders disclose the method of claim 11. Mauger and Sanders lack "the given transmission path is a physical transmission path." However, Harriman further discloses "the given transmission path is

5   a physical transmission path (figure 1 where the data path between the inputs and element 112 and the outputs is the physical transmission path)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the physical transmission path with the method of claim 11 for the same reasons and motivation as in claim 11.

10

Regarding claim 14, Harriman, Mauger, and Sanders disclose the method of claim 9. Harriman and Mauger lack "the returning step being performed by returning the further message containing information about the destination of the data packet." However, Sanders further discloses "the returning step being performed by returning the

15   further message containing information about the destination of the data packet (col. 11, lines 30-36)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the destination address in the further message for the same reasons and motivation as in claim 9.

20   Regarding claim 15, Harriman, Mauger, and Sanders disclose the method of claim 9. Harriman and Sanders lack "transmitting message packets, each containing multiple messages, together with the data packets through the switching system."

However, Mauger further discloses "transmitting message packets, each containing multiple messages, together with the data packets through the switching system (col. 3, lines 42-51 where it is suggested that the voice, video, and data is transmitting across the system and each message packet (ATM packet) contains multiple messages (mini

5   cells) and these are transmitted together with data packets as is suggested by the ATM packet layout of figure 1)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the transmitting message packets with the method of claim 9 for the same reasons and motivation as in claim 9.

10   Regarding claim 16, Harriman, Mauger, and Sanders disclose the method of claim 9. Mauger and Sanders lack "handling transmission of a message with a data flow controller." However, Harriman further discloses "handling transmission of a message with a data flow controller (col. 3-4, lines 67 and 1-2)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the controller with the

15   method of claim 9 for the same reasons and motivation as in claim 9.

Regarding claim 17, Harriman, Mauger, and Sanders disclose the method of claim 9. Mauger and Sanders lack "handling of messages with a data flow controller." However, Harriman further discloses "handling of messages with a data flow controller

20   (col. 3-4, lines 67 and 1-2)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the controller with the method of claim 9 for the same reasons and motivation as in claim 9.

Regarding claim 18, Harriman, Mauger, and Sanders disclose the method of

claim 9. Mauger and Sanders lack "producing, if a data packet is transmitted to a

plurality of destinations, only a plurality of messages and placing the messages into a

5   respective queue." However, Harriman further discloses "producing, if a data packet is

transmitted to a plurality of destinations, only a plurality of messages and placing the

messages into a respective queue (figure 2, elements 240 where multicast is

transmitted to a plurality of destinations as is known in the art)." It would have been

obvious to one with ordinary skill in the art at the time of invention to include the placing

10   the plurality of messages in a respective queue in response to a data packet being

transmitted to a plurality of destinations with the method of claim 9 for the same reasons

and motivation as in claim 9.

Regarding claim 19, Harriman discloses "a method for operating a switching

15   system for data packets...which comprises:

providing a switching system having inputs and outputs (figure 1, elements 102

and 104);

temporarily storing data packets at an input of the switching system (figure 1,

elements 112 and 115 where the shared memory is temporary storage for a switch that

20   receives many inputs); and

sending only a message, if a data packet is received for transmitting to another

switching system, to an output of the switching system, the message containing a

reference, information about priority for correct marshalling of the data packet...(col. 6,

lines 46-49 where the message sent to the output of the switching system is the

information about the data packet), and, if the data packet is transmitted to a plurality of

destinations, only a plurality of messages and placing the messages into a respective

5   queue (figure 1, elements 114, 130, 132, 134, and 136 where the message is the

header from the data packet which is then broken down into its components and stored

in elements 130, which is an unicast output queue as per col. 4, lines 27-28; figure 2,

elements 240 where multicast is transmitted to a plurality of destinations as is known in

the art); and

10   queuing a message packet containing at least one message in a waiting queue

at the output of the switching system (figure 1, elements 130, which stores the

messages and is a unicast output queue as per col. 4, lines 27-28)."

Harriman lacks the packets are of "varying length", and the message containing

"...information about a length of the data packet..." However, Mauger discloses the

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Mauger, these mini cells can be of varying length and are processed in the switching

system), and the message containing "...information about a length of the data packet

(col. 3, lines 28-29)..."

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invention to include the variable length packet and the message length information with

the rest of the method for the purpose of providing different services using one

switching protocol. The motivation being that services such as voice, video, and data

can be communicated using the same system without loss of efficiency (Mauger, col. 3,

lines 42-48).

Harriman and Mauger however, further lack what Sanders discloses, "returning a

5   further message to an input memory from an appropriate output as soon as the data

packet can be dispatched through the output, and only then transmitting the data packet

to an appropriate destination (col. 11, lines 30-36 where the output queue manager

controls the output queues and the memory refers to the input memory)."

It would have been obvious to one with ordinary skill in the art at the time of

10   invention to include the returning a further message with the method of claim 9. The

motivation being to allow the input memory to accurately combine data with data

addresses that were originally separated at the input, so that the combined address and

data may be further transmitted.

15   **Response to Arguments**

Applicant's arguments filed 2 September 2004 have been fully considered but

they are not persuasive.

Applicant argues that Harriman does not disclose the storing of packets at the

input port and that the sending of the header as the message to inform the output of

20   data ready for transmission is not the same as the message as claimed by applicant.

The examiner respectfully disagrees.

With respect to the storing of data at the input ports, applicant argues that figure 1, elements 112 and 115 store the data in the "middle" of the switching system. Although applicant is correct that the storage of data at element 112 appears to be in the "middle" of the system in figure 1, the actual memory unit could, in reality, be placed

5   near the front or input of the switching system due to fabrication constraints or other factors not allowing the switching unit to appear exactly as in figure 1. One of ordinary skill in the art would recognize this and know that therefore, the data could be stored at the input because the location of element 112 could be at the input. If applicant intends to disclose the data is stored "in" the input port, Harriman provides for this as well.

10   Applicant is directed to col. 7, lines 13-15 of Harriman. It is clearly stated here that "each port" of the system has queues, which are used to store the incoming data. It should also be noted here that although Harriman goes on to only discuss the output ports of figure 1, one of ordinary skill in the art would recognize that the input ports can also contain the same queues used for temporarily storing data before it is processed by the

15   system.

Regarding the use of the header as a message to inform the output of data ready for transmission, applicant argues that "the message according to the invention of the instant application does not correspond to the header of a data packet..." Claims 9 and 19 do not indicate or imply that the message cannot be the header of the packet.

20   Further, page 2, lines 21-32 of the specification (since page 2 only goes up to line 26 it is assumed lines 27-32 correspond to lines 1-6 of page 3) also do not mention that the message cannot be a header. Since there is no further disclosure of what the message

can and cannot consist of, the header and its use in Harriman fully read on applicant's

claimed invention.

Any inquiry concerning this communication or earlier communications from the

5   examiner should be directed to Joshua Kading whose telephone number is (571) 272-

3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone

number for the organization where this application or proceeding is assigned is 703-

10   872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

15   For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Joshua Kading
Examiner
Art Unit 2661

20   January 13, 2005
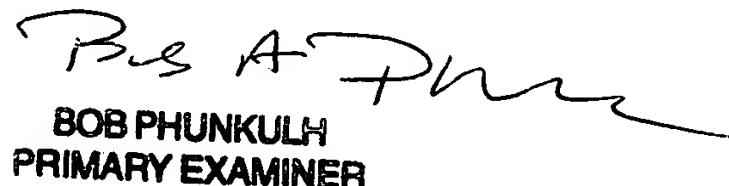
BOB PHUNKULH
PRIMARY EXAMINER